COST *and* MANAGEMENT

THE OFFICIAL JOURNAL
OF THE

CANADIAN SOCIETY OF COST
ACCOUNTANTS

INCORPORATED 1920

HEAD OFFICE, 81 VICTORIA ST., TORONTO

VOL. 2. JULY, 1927 NO. 7.

CONTENTS

Extra copies of this journal may be obtained at 50c each to members and $1 each to non-members.

The Balance Sheet

By H. D. CLAPPERTON, C.A.

Riddell, Stead, Graham & Hutchison, Montreal

(Before the Montreal Chapter, February 26, 1926.)

A BALANCE Sheet is a statement of the condition of the affairs of a business at a particular moment of time—generally at the close of business on a specific day. On one side of the Balance Sheet are grouped certain debit balances and on the other side certain credit balances. These are the balances shown by the books. It is customary to label the debit balances as Assets and the credit balances as Liabilities whether the Assets should appear on the left hand side of the Balance Sheet and the Liabilities on the right hand side as is the Canadian practice, or vice versa as is the English practice, is a point that is only of academic interest. The Balance Sheet, no matter which practice is followed, should show the true condition of the affairs of the business. You must not infer, however, that a Balance Sheet is merely a list of balances taken from the Ledger and grouped under certain headings. True, it is a list of balances, but these balances must be adjusted to conform to certain principles of valuation which will be discussed.

Now it is well to remember that a Balance Sheet is prepared to show the condition of affairs of a going concern. It does not purport to show the realizable value of all the Assets. Some, indeed, of the Assets may have no realizable value. Expense items which are being written off over a period—like Bond Discount, for instance—have no realizable value whatsoever. The Balance Sheet does, however, show the realizable value of certain Assets, and these are the Assets which are commonly classified as Current Assets.

Assets other than Current Assets generally fall into one of two categories—Fixed Assets or Deferred Charges. This division of the Asset side of the Balance Sheet into three parts, like all Gaul, is not by any means an exhaustive division. For the majority of cases it is probably sufficient. These Fixed Assets or Deferred Charges are shown, not at realizable values, but at cost less an allowance for depreciation where necessary.

Principles Underlying Division of Assets

The next point then is to determine the principles that regulate the division of the Assets into Fixed, Current and Deferred Charges. What are Fixed Assets? Fixed Assets may be defined as property—using the word in its broadest sense—which has been acquired for the purpose of earning a revenue, and not for the purpose of resale. It includes plant, tools, machinery, buildings and land and all the equipment that enables the raw material to be transformed into the finished product. It includes Goodwill, Patents, Trademarks, Leases, Franchises, Contracts, Organization Expenses and other intangible Assets of that nature. All Fixed Assets have one characteristic in common, they are necessary to the carrying on of business and are not for sale. It is the intention with which the property is acquired, that determines whether it is a Fixed or Current Asset.

What are Current Assets? These are the Assets acquired solely for the purpose of resale and being converted into cash. They follow a regular cycle—from Cash to Cash. Cash purchases raw material. Raw material with the help of Fixed Assets, and more current expenditure for labour and other charges, becomes Work in Process. Work in process, with the same help, becomes finished goods. Finished goods are sold and become Notes and Accounts Receivable. These in turn become cash, and the cycle is ended. Our Current Assets are, therefore, Cash, or Assets which can or will be turned into Cash, without impairing the business.

Deferred Charges are items of expense which have not been charged off, for the reason that the full benefit of the expenditure has not been obtained at the time the Balance Sheet is prepared. These charges are mostly prepaid insurance, bond discount, taxes, prepaid royalties, etc.

To these three classes of Assets, as previously mentioned, not all the same rules of valuation apply.

Valuation of Fixed Assets

Fixed Assets are for Balance Sheet purposes valued at cost, less an allowance for depreciation where necessary. They appear in the Balance Sheet at their usable value and not at their exchange value. Their exchange value might fluctuate from year to year, and if these fluctuations were to be regarded it might be found that a Company was able

to make a profit, although it had never made a sale, which, as Euclid would say, is absurd. Profits are made on sales and Fixed Assets are not intended to be sold. Fluctuations, therefore, in their value may be disregarded. Yet this simple principle that profits are taken on sales only is not always perceived. Many Executives have been deluded into thinking that they have made a profit, when some appraisal shows that at current values the exchange value of their Fixed Assets is geater than cost. They have not been alone in thinking so, as some dubious legal decisions show. Fixed Assets, although not intended for sale, are consumed in the process of earning a revenue. You may remember John Stuart Mill's second proposition regarding capital, "Capital though saved is Consumed." All capital expenditure on Fixed Assets subject to depreciation is merely a deferred charge to Revenue—deferred possibly a little longer than the charges we usually classify as deferred charges. If you increase the value of your fixed assets you increase the charge to Revenue. If you work up your Fixed Assets and carry the appreciation to surplus, you are creating an apparent present surplus which has to be provided for out of future profits. Yet companies do this. The Balance Sheet of the B.C. Canners, for instance, shows a Profit & Loss debit balance reduced by gain on appraisal of Fixed Assets, and the Balance Sheet of the Minnesota & Ontario Paper Company shows "Surplus including appreciation arising from appraisal of properties." Companies do not usually write their Fixed Assets down on appraisal. Logically they should, of course, but it is not done. There are cases, of course, where companies have in the past written their Fixed Assets drastically down and then for some reason—taxation or otherwise—desire to show them nearer their true value. These companies have a better claim to write their Assets up and carry the difference to surplus. The argument, however, that this will entail an increased charge to Revenue holds good in their case also. Are Fixed Assets then never to be shown at more than cost less depreciation in the Balance Sheet? By no means! Fixed Assets may be written up provided the appreciation is not carried to Surplus. It may be, and usually is, credited to an account carrying some such title as "Reserve for appreciation arising on Appraisal of Fixed Assets." On the Balance Sheet under the heading of Fixed Assets will be shown the Appraised Value, and on the

Liabilities side the Reserve for Appreciation. In truth, the same result would be obtained by showing the Fixed Asset on the Balance Sheet at cost less depreciation, together with a note that the appraised value is so and so.

Valuation of Current Assets

Current Assets, as we have seen, are Cash, or something which is to be converted into Cash, and accordingly in the Balance Sheet, Current Assets appear at their Cash value or less—never more. Current Assets should be current and readily realizable within a reasonable period. Inventories which form a large part of the Current Assets usually, are generally valued at cost or market whichever is the lower. Some Companies, however, value their Inventories at much less than cost. They have established what is called a base price for a normal inventory, and this they adhere to irrespective of cost. Any excess beyond this normal is carried at cost. In a period of rising prices this means deferring profits on raw materials purchased till the sale is made. When a slump comes—like 1920—it is not necessary to write the Inventory down. Cost or market, is the general rule for Inventories. Accounts and Notes Receivable should appear at a value after making provision for Bad and Doubtful Debts. If there are any Investments among the Current Assets these should be readily realizable and should appear at cost or market whichever is lower. Investments in other companies for the purpose of control, it may be pointed out, are not Current Assets.

Deferred Charges appear at cost less the amount written off. They have, as a rule, no realizable value.

Extent of Detail

Having stated the principles of valuation to be adopted, there remains the question of how much information the Balance Sheet should afford regarding the composition of the Assets. On this point there are statutory enactments that must be kept in view. Apart from these, the amount of information to be disclosed remains a matter of choice. There is the example of the MacKay Companies whose Balance Sheet contains on the Asset side exactly two items. These are Investments $93,219,803.96 and cash $295,368.10. From the point of view of an Investor the Balance Sheet does not afford much information. So far as Dominion Companies are concerned, the minimum amount of informa-

tion which the Balance Sheet may disclose is stated in the Companies Act. We may, I think, take it that that minimum represents what may be considered as desirable practice. We will consider the Balance Sheet then in the light of the Act. Firstly, then, as to Fixed Assets. The Act requires that tangible Assets be shown separately from intangible Assets, as it is of importance to know how much of the Fixed Asets represent intangibles. You have probably seen Balance Sheets where under the heading of Fixed Assets you found something like this, Timber Limits & Licenses, Water Powers and Hydro Electric Development, Mill Buildings, Plant and Machinery, Equipment, Industrial Sites, Railroads and Goodwill, including Bond Discount and all interest and Administration Expenses during construction. Perhaps if the truth were known the item of Goodwill was the largest item in this imposing list. No Shareholder or Creditor or anyone else, unless he had access to the Books, could form any idea of the true value of these Assets. It was to afford information that the Act required the separation of tangible from intangible Assets. Some Companies have very large Goodwill items. Imperial Tobacco Company has total Assets of $57,956,359, and a Goodwill item of $28,816,800. Famous Players' Balance Sheet shows total Assets of $15,147,902 of which Goodwill comprises $8,596,637. I am not saying at the moment whether these Goodwill items represent value or not. That point will be considered later. The point I wish to make is that all intangible Assets on a Balance Sheet immediately invite inquiry as to their value. The intangible Assets very often represent nothing more than the capitalization of the optimism of a promoter. This is so well-known that some companies after they have written off their Goodwill item disclose the fact in their Balance Sheet. The Canadian General Electric and Ogilvie Flour Mills Company, for example, show their respective Goodwills on the Balance Sheet at $1.

Next, as to our Current Assets. The Act requires that the Balance Sheet should show separately (a) Cash, (b) Debts owing to the Company from its Customer, (c) Debts owing from the Directors, Officers and Shareholders respectively, (d) Stock in trade. This list is not exhaustive. One might add, for instance, amounts due from affiliated concerns, Investments, and Deposits, and other items not connected with sales. The important point, however, is, that

the Balance Sheet should disclose what the trade Accounts Receivable amount to. Sometimes Current Assets are hypothecated. If so, the Balance Sheet should disclose the fact for the information is of great importance to a Creditor.

Deferred charges are generally grouped under some comprehensive heading that correctly describes the items. Any special item of a large amount should generally be shown separately.

We have dealt broadly with the three groups of Assets —Fixed, Current and Deferred Charges. Generally in the Balance Sheet of an industrial concern they are grouped in that order, but not always. Some Balance Sheets have Current Assets first, then Fixed Assets and, lastly, Deferred Charges.

The Liability Side

We turn now to the other side of the Balance Sheet where the credit balances appear under the heading of Liabilities. Our Liabilities may be classified as Fixed and Current. What are fixed liabilities? These have been defined as "The paid up value of par value shares, or original consideration received for no par value shares and obligations under seal or otherwise, which according to their terms *do not mature until more than one year from date of issue* (commonly known as "funded debt" or "long term debt"). Employing this definition we will expect to find then under our heading of Fixed Liabilities the stock issued, bonded indebtedness and mortgages due. In the case of stock, our balance sheet should show each class of stock, if more than one has been issued, the amount authorized and the amount issued. It should show also whether the stock has been fully paid. If the preferred stock is cumulative and there are dividends outstanding a note should be made on the Balance Sheet of the amount outstanding but not yet declared. So far as Bonds are concerned, the Balance Sheet should show the amount issued and in escrow, rate of interest, and duration of Bonds.

Current liabilities have been defined as liabilities which are "due and payable immediately or in the near future theoretically out of current or quick Assets, as distinct from Capital or Fixed Liabilities." Included among current liabilities on the Balance Sheet we will expect to find them Notes and Bills Payable, Accounts payable and liabilities accrued, like wages, interest, taxes, etc. If any of

these liabilities are secured as previously mentioned on the Assets, the Balance Sheet should disclose the fact. Now it is particularly important that our Balance Sheet should show the current liabilities accurately, yet how few Balance Sheets disclose purchase commitments which may result in a serious liability. I can only recall one Canadian Balance Sheet that discloses this useful information. The difference between our Current Assets and our Current Liabilities measures the working capital of the undertaking and working capital is the life blood of the concern.

On the turnover or circulation of our working capital depends our profits. The ratio of current Assets to current Liabilities is the most significant ratio that a Balance Sheet discloses. It is to that ratio that the Banker of other Creditor first turns his attention when asked for credit. It behooves us, therefore, to see that our working capital position is correctly stated.

After the Fixed Current Liabilities as thus defined should come the surplus composed of accumulated profits and the profit for the year, less any dividends paid.

Question of Reserves

It has probably occurred to some of you that I have made no mention on the liability side of Reserves, a heading appearing on nearly every Balance Sheet. The omission was intentional as I believe that Reserves rightly analyzed should appear under some other heading. Reserves can be divided into two classes. These are (and I adopt the terminology of Sir Arthur Louis Dickinson) voluntary and necessary. A Voluntary Reserve is merely an ear-marking of a portion of surplus, which still remains surplus notwithstanding the earmarking. Examples are Reserves for Accidents and Insurance, Working Capital and so on. Necessary Reserves are charged against Profit and Loss, like Reserves for Depreciation, Bad Debts and Inventories. The necessary Reserve should preferably be deducted from the appropriate Asset, and the Voluntary Reserve, which is really a part of surplus, should appear under that heading as a separate item, to show that it is not considered as available for dividends. There are other Reserves which are really Accounts Payable and should appear under that heading. I refer to Reserve for Taxes, etc. It is rather interesting in the light of these remarks to examine the Balance Sheets

of various Companies and see how the question of Reserves, particularly Reserves against Current Assets, have been dealt with. The following Companies show under the heading of "Reserves" on the liability side of the Balance Sheet a Reserve for Bad Debts:—Abitibi Power & Paper Company, Limited, Atlantic Sugar Company, Limited, Brompton Pulp & Paper Company, Limited, Canadian Cottons Company, Limited, Canadian Fairbanks-Morse, Limited. If the working capital of a company is, as I have stated, the difference between Current Assets and Current Liabilities, surely it would be better to deduct the Bad Debt Reserve from Accounts Receivable. If $100 of Accounts Receivable are worth only $90 (and that is what a Bad Debt Reserve of $10 would imply) then the difference between Current Assets and Current Liabilities would not show the true working Capital. It would be overstated by $10. In the interest of uniform practice and simplified Balance Sheets, surely it is better to deduct your Bad Debt Reserve from Accounts Receivable, and show the amount of these net on your Balance Sheet. It is interesting to note also that Abitibi Power & Paper Company also shows under the heading of "Reserves," a Reserve for Inventory. It does not matter so much so far as Reserves against Fixed Assets are concerned, but yet the practice is far from uniform. You will probably find on most Balance Sheets that the Reserve for Depreciation is deducted from the Fixed Asset, which I think is the best practice. One Balance Sheet shows Surplus and Reserves added together, although one of the Reserves is a Reserve for Depreciation. The other Reserves are probably surplus. Another Balance Sheet shows under the heading of Fixed Liabilities, Bond Redemption Reserve, Bond Premium, and Reserve for Depreciation.

Doubtless you are aware that our Canadian Banks do not disclose their Reserves. Bank Reserves are secret as they should be. There is not the same necessity for secret Reserves in the case of an industrial concern. There are, however, many cases of industrial Companies which carry Reserves that do not appear on the Balance Sheet. This raises a nice point as to whether it is right or fair to the shareholders to do so. Such a practice as building up a substantial Secret Reserve might easily result in manipulation of a Company's shares by the Directors. In general, the attitude of the Auditor is, I think, that so long as no apparent injustice is being perpetrated, and so long as the

Directors are apparently acting in good faith, there is nothing that calls for comment. After all the Directors are managing the Company and they are presumably the best judges of the necessity for the Reserve. Inventory Reserve is a common secret Reserve. You will sometimes see in a Balance Sheet that the inventory is stated "less Reserve." Many Companies in 1920 set up Inventory Reserves which are no longer required. These Reserves have never been written back, but are still deducted from the Inventory, although the Inventory itself is properly valued or undervalued. I mentioned previously that the Abitibi Power & Paper Company disclose their Inventory Reserve. Dominion Glass Company, for instance, indicate that they have an Inventory Reserve without any indication of its amount. It is a matter of knowledge that one well-known Company has a substantial Inventory Reserve that is undisclosed on the Balance Sheet.

These differences in the treatment of Reserves suggest that it would be in the interests of everybody to adopt as far as possible uniform methods for the preparation of Balance Sheets. The American Association of Accountants have outlined for the Federal Reserve Board, what they consider the form of a Balance Sheet should be for credit purposes. This form has had a tendency, I believe, to standardize practice in America, and I think it is a pity that we have nothing quite like this in Canada. The American Association of Accountants has also had a Committee sitting for some time in order to prepare a standard terminology for Accountants. This is badly needed.

Contingent Liabilities in respect of Bills Discounted, Guarantees given, or from whatever cause arising, should be noted on the Balance Sheet.

What Does Balance Sheet Tell?

Now that we have discussed the meaning of the groups of Assets and Liabilities, what should a Balance Sheet tell us? In conjunction with the Profit and Loss it should tell us a good deal. Two successive Balance Sheet and Profit and Loss Accounts will tell us more. If you have access to the Auditor's Report in addition, you may probably learn even more. However, let us examine the Balance Sheet. The first item that invites inquiry is the Fixed Assets: Look and see how much are intangible. Has anything been written off the intangibles? Except for intangibles affected by

the efflux of time, nothing need be written off intangible Assets. The value attached to the Goodwill item should be examined in relation to the surplus and the profits earned by the business. This will afford some indication whether the item is reasonable or excessive. There is one case of a Company which has total Assets of $1,401,360 of which total Goodwill and Trade Marks account for $588.223. Profit and Loss shows a debit balance of $143,016. You can judge for yourself how much its goodwill is apparently worth. What is Goodwill? In modern practice Goodwill is generally reckoned as some multiple of the earnings in excess of 6% or so on the net tangible Assets. The multiple and the rate allowed on the net tangible Assets varies according to different ideas. In valuing patents, for example, the Income Tax Authorities regard 10% as a reasonable return on the net tangible Assets.

With regard to the tangible Fixed Assets, depreciation provided should be noted. A company incorporated under the Dominion Companies Act must disclose this information. Whether sufficient depreciation has been provided can be roughly estimated, except in the case of a Company working a wasting Asset. A depreciation Reserve properly administered should fill like a reservoir and empty, and there is a certain rough mark beyond which it should not rise. The purpose of a depreciation Reserve is to provide funds to replace Assets when their usefulness has terminated. During the early years of a Company's life the depreciation Reserve should be all income and no outgo. Later on income and outgo should about keep pace. It is obvious that if this statement be admitted, that during a Company's early life generally too much is placed to the Credit of the Depreciation Reserve. An examination of a few Balance Sheets will show that this is not far wrong. We will find many Companies with Depreciation Reserve equal to 25% or more of their Fixed Assets, including land which does not depreciate. Yet if a Depreciation Reserve of that amount is not to be viewed as liberal, it means that they are carrying on business with Assets 75% efficient. There are well understood exceptions, of course, where a Depreciation Reserve of 25% or even more may be absolutely necessary owing, perhaps, to peculiar vicissitudes of the industry, the march of progress or some other reason. I am, however, thinking generally of the ordinary industrial concern. The truth, of

course, is that the Income Tax Act and other considerations induce Companies, when they can, to provide liberally for depreciation, so that depreciation becomes to some extent a secret Reserve. The Balance Sheet of one Textile Company discloses a provision for depreciation only during the last three years. Possibly, the Income Tax had something to do with that. F. P. Jones, of the Can. Cement Company, voiced this thought and not so long ago urged making as liberal a provision for depreciation as the Income Tax Authorities would allow. There are many Companies whose Balance Sheets will show a steady growth in the Depreciation Reserve over a long period of years.

To return to our point, however, we may, as a general rule, consider a 25% Reserve against the Fixed Assets, in the generality of cases, as a reasonably liberal provision. The next point that suggests itself, while we are discussing Depreciation, is, how much of our Depreciation Reserve is readily available? Bell Telephone Company, for instance, in 1924 showed a Depreciation Reserve of $21,872,254 and total Current Assets of $3,668,481. Where is the Depreciation Fund? It is obviously invested in Fixed Assets and could only be made available by the issue of Stocks or Bonds or a fixed loan of some kind.

Investments and Advances

Sometimes we find that the Balance Sheet shows Fixed Assets which consist largely of Investments in and advances to other Companies. A Balance Sheet of this nature demands careful consideration, as, unless the Balance Sheets of the Companies invested in are submitted, it is difficult to ascertain the true value of the Investments or Advances. Nothing is easier than for a Company of this nature to dress its shop window and present a liquid appearance that is not justified. This can be done by borrowing from subsidiaries who are in a position to lend and altering your Balance Sheet item to read "Investments in and advances to other Companies less loans received."

We have seen what the Current Assets generally consist of. Our first inquiry should be directed to ascertaining if the Current Balances are Current. Occasionally you will find an item like this, "Sundry Debtors and Debit Balances." In the Balance Sheet of the Imperial Tobacco Company there is an item of that description to the amount of $4,575,487.36. This naturally suggests an inquiry as to the composition of the debit balances. Assuming, however,

that the Current Assets are correctly stated, what should we consider regarding them? The main consideration is as to their adequacy in relation to the current liabilities. The difference between these is the Working Capital.

Judging the Working Capital

Is the Working Capital sufficient? There is a rule of thumb which says that, generally, the Current Assets should be twice as great as the Current Liabilities. This rule is subject to exceptions, as the amount of Working Capital necessary, depends on the period of manufacture, the turnover, the terms of Credit given by the Company and other factors. An examination of the Balance Sheets of a good many Industrial Companies will show ratios which vary from about 15 to 1 in the case of Penmans Limited, down to less than 2 to 1 in other cases. As a general rule the Cash and Accounts Receivable should equal the Current Liabilities, because it is necessary to sell merchandise before it can be made available to meet Current Liabilities. Sometimes a Balance Sheet shows little or no working capital. This should be considered in the light of surrounding circumstances. A few years ago a Balance Sheet of the Can. Cement Company showed practically no working capital, and someone ventured the rash prediction that the Company would pass its next preferred dividend. What the prophet overlooked was that the Company had temporarily locked up some of its Current Assets by making capital expenditures pending an issue of bonds. Before the next dividend date the Bonds were issued and the Working Capital replenished. A year ago the Bell Telephone Company published a Balance Sheet showing no working capital. This also was on the eve of a bond issue. An examination of the Balance Sheets of a Company for more than one year is interesting as it shows the trend of Working Capital. We may find on comparing two successive Balance Sheets that the ratio is not worse, but we may find our Current Assets are less current than formerly. Cash, for example, may be less and Accounts Receivable and Inventory greater. It is usually an unhealthy sign in a period of dull business to find that the Inventory shows an increase over the Inventories of previous years. Accounts Receivable increasing and Sales stationary, suggest that the Accounts Receivable contain Slow or Doubtful Accounts that should be provided for. It is useful also to compare the amount shown as

Accounts Receivable with the amount shown as merchandise. The ratio varies in different industries, but in most cases the merchandise should be greater than the Accounts Receivable. If a company is selling on 30 days' credit the Accounts Receivable should bear some relation to that fact. Most concerns require a greater supply of merchandise than a 30 days' supply, so that for most industries the merchandise should be greater than the Accounts Receivable. An investigation of 158 General Stores by the University of Nebraska discloses that the average ratio of Merchandise to Receivables for that class of business is 3 to 1. There is one published Balance Sheet of an industrial company in which the Receivables are greater than the Merchandise. Inquiry elicited the information that the Accounts Receivable contained some Consignment Accounts. If these had appeared under Merchandise, as they should, the Merchandise would have been greater than the Receivables.

Deferred Charges should be noted if these are large in amount.

The Capital Structure

Turning to the liability side of the Balance Sheet, the first point to which attention should be directed is the authorized and issued Capital Stock. Is the Capital Stock fully paid up? Stock fully paid is non-assessable except in the case of Bank Stock. If the Capital Stock is not fully paid up are there any calls in arrear? And if there are, are these large in amount? A large amount of calls in arrear would suggest that the possibility of recovering these is doubtful. Is there any likelihood of a call being made on the Shareholders and what is the financial position of the Company? If the Company is not in a sound financial position, the stock of the Company may represent to the holder a liability rather than an Asset. From the point of view of a Creditor, however, uncalled Capital and calls in arrear represent a further security. If there is more than one class of stock, what are the rights of the shareholders among themselves? For instance, is the Preferred Stock preferred as to Capital, is it a cumulative preferred, and to what extent does it participate in profits? Are there any dividends in arrear on a cumulative Preferred Stock? The Balance Sheet will not disclose where the voting power resides. This, however, suggests itself as a useful inquiry to make,

as it is well to know if the Company is controlled by a person or group of persons.

The next item inviting attention is the bonded indebtedness. On what assets is it secured? Is it a floating charge as well as a fixed charge on specific Assets? How does the bond issue compare with the Assets pledged? Are the bonds convertible? It should be remembered that as a general rule bonds are not a first charge on Current Assets. They are usually a charge on the Fixed Assets, and Fixed Assets have usually a low realizable value. For this reason fixed tangible Assets, if pledged, should represent about three times the amount of bonds issued.

Current Liabilities

Our next inquiry should be devoted to the Current Liabilities. Their relation to the Current Assets has already been discussed. It is well to remember that a large floating indebtedness is not a healthy position, especially if it comprehends a demand loan. Such a loan may be wholly or partially secured on Assets, and if there is security the Balance Sheet should disclose the fact. This is a requirement of the Dominion Companies Act. It is a wise rule, because if certain of the Assets are pledged there is not so much security left for the unsecured Creditors, and still less for the Shareholders. It is not required, however, by the Companies Act to disclose on what Assets the Liability is secured. An indication of the Assets pledged is useful, but Companies are not always anxious to afford this information. A Bank loan in a Balance Sheet indicates security of some kind. In the case of a manufacturing Company or a Wholesaler, the security is more often than not a security taken under Section 88 of the Bank Act. This is the section which, shortly, allows a manufacturer or wholesaler to pledge his inventory.

Reserves should be examined. As I have pointed out, they fall into 3 classes: (1) a deduction from an Asset, (2) Accounts Payable, and (3) Surplus. It is the last class that concerns us. It is rather unfortunate from the point of view of simplicity that all Surplus items are not grouped together on the Balance Sheet. If they were they would show in conjunction with the stock the Shareholders' equity. As it is, in order to ascertain this, one usually has to scan the Reserves, pick out the surplus items, add these to sur-

plus and then add the total to the stock. The result then obtained is the net worth of the Company. It is the balance belonging to the Shareholders and represents their investment in the Company. The tendency in America is to make the Balance Sheet show true surplus and, accordingly, one finds under the heading of Surplus all the surplus items. Surplus is then divided into two sub-headings: "Appropriated and Unappropriated." Under the heading "Appropriated" are found the Voluntary Reserves, and the "Unappropriated" supposedly represents the Profits Available for Division. Compare the surplus available for division with the current Assets, particularly in relation to the amount of cash on hand. Many surpluses are locked up in Fixed Assets acquired during a boom period and now unnecessary. It is well also to inquire the origin of the surplus—whether from operations or not.

Finally, it is well to compare the net worth with the Liabilities of the Company. The latter denote the extent to which the Creditors of the Company are financing it. I know one Company whose Liabilities are twice as great as its net worth. This means that the Creditors have a larger interest in the Company than the Proprietors. This situation denotes weakness.

Proper Basis of Salesmen's Compensation

By HORACE G. CROCKETT

Resident Engineering Partner, Scovell, Wellington & Company, New York

(This material is reprinted by permission from the Bulletin of the National Association of Cost Accountants, Vol. VIII. No. 7. It was presented originally by Mr. Crockett, at the regional conference of the National Association of Cost Accountants, held in Buffalo, N.Y., February, 1926.)

THERE is a growing tendency on the part of business generally to concentrate attention on selling costs. Selling expense is frequently more than the manufacturing expense, sometimes more than the total manufacturing cost; and most business men will agree that it is almost always too large.

A great deal has been done in recent years to reduce manufacturing costs, but those who have been working on that problem, however successfully, must sooner or later realize that they are dealing with only part of the outlay which ought to be controlled.

The analysis and distribution of selling expenses is admittedly a difficult problem, but altogether too many executives have been content in the past to deal solely with statements showing selling and administrative expenses in total, with little or no attempt to distribute those expenses to products or to territories.

Those who have tackled this problem are gradually coming to see that something better can be done. The plan I shall outline has already met with real success over a considerable period of time, and reliance on that experience naturally gives me more confidence to present it for your consideration.

Definite Goal Required

Every cost accountant has long known that the only costs which are of much value are normal or standard costs, or at least that a normal burden must be established to correspond to a normal production. We all recognize that principle as sound, and the same principle applies to selling costs. In fact, I believe it is more essential to determine

normal selling costs than it is to determine normal manufacturing costs.

In speaking of manufacturing costs, we say that normal unit burden costs, or normal burden rates, are determined by dividing normal burden by normal production. Translated into terms of selling cost, that means dividing a carefully worked out sales quota into a budget of expense calculated for that quota.

For the satisfactory distribution of selling costs to product, in order to have a complete final cost of each article sold, it is very important to establish normal selling costs based on a budget and a sales quota. The reason is that if you start to distribute certain selling expenses that are practically fixed, either to territories or to products, on the basis of sales volume (dollar value), which sometimes seems to be the only possible base, you are immediately impressed with the very evident injustice of that plan, if you use actual or past sales. You then realize that a fair normal or quota is the only equitable basis. That is exactly the same problem that you encounter when you try to distribute certain fixed expenses to the departments of a factory, and there, as you know, you always use normals.

Importance of Making a Start

Every one will agree that a budget of expense can be established, although many will probably say that it is very difficult if not impossible to keep within it. I know I shall hear many say that they cannot establish sales quotas in their business. They will say, "It cannot be done; our business is different."

The quota may be far from accurate at first, and you may find actual sales coming very far from it, just as you may find actual expenses coming very far from the budget; but an examination of the facts will indicate whether the quota or budget was wrong, or whether the salesmen are now falling down on the job. In any event, you must start sometime, and you will gradually accumulate accurate data, so that eventually you will have little difficulty in establishing quotas and budgets which are entirely possible of attainment.

Determining Sales Quotas

I might spend an hour or two in talking about the many factors that must be considered in analyzing a market to establish an ideal sales quota for any industry. You have

all read of the various studies that large corporations have made to learn about the market for their product, and their use of such factors as population, density of population, buying power, number of Ford owners, and many other items gathered from census statistics, etc., and from studies made by the large advertising mediums and advertising agencies. You must use your best judgment in deciding what factors apply to your case, always remembering that in almost every territory there will be certain conditions peculiar to that territory, which will affect your conclusions.

When sales quotas are compiled from carefully selected governing factors, the more or less ideal results will seldom resemble actual sales in the past. For this reason, there may be an inclination to cast aside these ideal quotas with the feeling that they are only dreams and quite impossible of attainment. On the contrary, the very contrast shown by the figures, if carefully prepared, should serve to keep in mind the points which are too likely to be overlooked.

Because of this fact, it is desirable to use two sets of figures. One set represents sales quotas which are thought possible of attainment, but carefully prepared along ideal lines. The second set of figures represents what might be called working quotas, which are based partly on past sales performances, and are deemed reasonable of attainment for the coming year, or period of time under consideration. The so-called ideal quotas are primarily the concern of the sales manager. To demand a corresponding performance from salesmen in the field would often appear unreasonable and unjust. On the other hand, where it is found that working quotas are far below ideal quotas, the figures stand as a direct challenge to the sales manager, who must correct the conditions, or else be able to convince his superior that the ideal quotas are wrong.

Following along the lines of ideal and working quotas, the tendency is gradually to increase the latter, as actual performance indicates that this is reasonable, or when necessary to adjust the ideal quotas for proved errors of judgment. From the sales manager's point of view, working quotas may be said to bear somewhat the same relation to ideal quotas that actual costs bear to standard costs.

Carefully prepared ideal quotas will often suggest the desirability of territorial rearrangement; but until there

is an opportunity to test these new quotas, the management will naturally be reluctant to change territories. If a consistent and careful study, however, is made of the actual performance in comparison with the quotas, it is only a question of time before the most skeptical management will find itself placing faith in the established quotas.

Not long ago we were dealing with a client that made and sold pajamas and night shirts. At a conference of the salesmen we asked them to go through the line and tell us what styles they thought they could sell, and in what quantities. One bright and energetic young salesman, one of the "snappy dresser" kind, said we ought to have a full line of silk pajamas of brilliant colors, stripes, etc. Immediately another salesman, a man of about fifty who had been with the company for many years, and who produced a larger volume of sales than any of the others, said that was all nonsense. There were not enough of those things sold to amount to anything, and anyway the risk in handling delicate fabrics and in the possibility of certain patterns going out of style was too great. The young man covered Tennessee, Kentucky, and states south of there. The older man covered Chicago, Detroit, St. Louis and larger cities of the middle west.

It occurred to me that neither of those men was giving any thought to the real requirements and possibilities of his territory, but each was just expressing his own personal taste in the matter of nightwear. The young man looked to me just like the kind who would be likely to wear a suit of passionate pink pajamas, but I suppose the older man would not want to be found dead in anything but a good old-fashioned nightshirt. So I suggested to the two men that they forget their personal tastes, make a real investigation of their territories on the next trip, and find out whether or not their dealers were carrying silk pajamas in their stores. As a result the company did put in a line of silk pajamas of fancy patterns, and a very much larger percentage of them are sold in the older man's territory than in the southern territory.

Naturally any sales quota is governed by factory output or capacity. It is useless to set a quota that is more than the factory capacity, and as we all know, for several years past, and even now in many industries, full factory capacity has not been used. The ideal quotas, therefore,

represent what is believed to be a *correct relat've distribution* of a predetermined total amount.

The Expense Budget

In cases where the difficulties of establishing a budget are relatively great, there is a regrettable tendency to say, "Our business is different, and we cannot set any standards." Yet these same concerns will make records of what they are pleased to call actual costs, and attempt to judge them and learn a lesson from them without having a real means of measurement. In order to judge results at all, however, the judges must consciously or unconsciously set some measurement standard. There is not a particle of doubt but that measurement standards are always used. The only difference is that the improved modern method determines these in advance, as the result of careful study, whereas the obsolete, but far-too-often used method, is that which takes "history" as standard perhaps modified by guesses based on snap judgment.

Whatever the difficulty, the proper procedure is to make a start and fix the standards as best you can, improving them as rapidly as possible. It is surprising how the measurement of costs by any standards leads to improvement of these standards, as well as the costs.

Furthermore, many items which at first consideration are labeled "undeterminable," become surprisingly definite when more is known about them, and their meaning is shown in a different light. Unfortunately, many who start a budget plan become discouraged when they find that some expenses come very far from the budget, probably because a careful study of the situation was not made in the first place. Budgets, like everything else, are about as good as you make them, and you get out of them just about what you put into them.

Application of Expense to Product

We can all appreciate that if we had only one product, selling at a uniform price, the problem of applying selling expenses to the product would be comparatively simple. We rarely have any problem as simple as that, however, and at the other extreme is the company that makes and sells hundreds and even thousands of different sizes and kinds of articles.

I would approach this problem in exactly the same way that I would approach the problem of distributing general manufacturing burden in the factory. There we forget the products for the time being, and carry each item of expense to the departments or production centres to which they belong, until we get all of the general expenses distributed to the production centres.

In dealing with selling costs, I would consider first the district or the branch, and finally each salesman as a production centre, and distribute all items of general selling expense to those branches or districts, and finally to each man. If one salesman happens to be a specialist, and sells only one line or product, he is no different from the department in the shop which is outside of the regular production program and makes some special article.

One of the first questions that will come up is that of administrative expense. Some consider that all expenses are either manufacturing or selling, and recognize no further division; but others think of administrative expense as something distinctly separate. If you feel that you must get a final cost that is all-inclusive, then you must divide administrative expense between selling and manufacturing. In a small company where administrative expense is relatively small, perhaps this is the best plan. In a large corporation, with large corporate, financial, and purely executive expenses, I can see no advantage in doing this, as it is impossible to allocate these expenses on anything but a rather arbitrary basis, and I believe it is better to add them as a flat percentage of the total cost (manufacturing and selling).

Having distributed all expenses to the territories or to the men, we now come to that very troublesome question of what basis we are to use in applying expense to the product sold, in order to get its total cost. Unfortunately few items of sales expense have any obvious relation to one product or another handled by the same salesmen, so that some more or less arbitrary basis must be used. If I were to say that volume of sales should be the basis, you would immediately answer that it costs no more to sell one article for a thousand dollars than it does to sell another for a hundred dollars, or at least not ten times as much. If I were to say that units of product, or number of articles, should be the basis, you would answer that it is no harder to sell

a big customer ten articles than it is to sell a small customer one article. If I were to say that number of orders received should be the basis (or number of inquiries received, in the case of a contracting business), you would make a similar objection.

It seems to me, therefore, that we are confronted with the fact that there is no basis which holds for all conditions, and that in each industry we must take the least objectionable basis, considering the amount of work involved and fairness to the products and to the men.

I believe that this basis is volume of business, although there may be two or three ways of expressing that. If there is no great variation in the margin of profit between manufacturing cost and selling price, the selling price or volume of sales is as good as any. If there is a very wide difference in the margin, perhaps manufacturing cost is a better basis; and if you are using standard costs, it is no more difficult to make one calculation than the other.

There might be a further distinction where there are two products requiring almost exactly the same amount of manufacturing labour and burden, but where one is made of a much more expensive material than the other; in such a case the standard labour and burden cost alone is the better basis, for the output of the factory, as expressed in labour and burden, is what you are trying to sell, and the relative value of different materials used is of no particular significance. This, however, is probably a refinement that it would not pay to undertake in the beginning.

One objection to this plan is that it costs no more to sell a $1,000 article than it does a $100 one, and presumably the argument holds good whether the figures represent sales price or standard cost. One of the best illustrations I can think of is a company that manufactures and sells products ranging from a small device at $12 to a huge machine selling for $300,000. I do not know where to draw the line, but it does cost more to sell the more expensive article than it does the cheap one.

It would perhaps be very difficult to prove that the selling costs vary in the same ratio as sales; and to take this particular example, I would not want to be called upon to produce figures to prove that it cost twenty-five thousand times more to sell one than the other. On the other hand, it does not require a very large investment or a

tremendous amount of energy or brains to build an organization that can make and distribute an article that sells for twelve dollars, but it is quite a different proposition to put a company in the position where it has the investment, the reputation, and the financial standing necessary to make and sell, as only one of many products, a machine that costs the customer $300,000. Back of the latter there has been a huge outlay of money, effort, and brains to build up an organization capable of handling that kind of work.

I may be dealing in pure theory, but I want to emphasize that once you have distributed your selling expenses to territories or to the salesmen, you will not be far out of the way when you apply those items that are general in their nature to the product on the basis of volume of sales.

After determining the best distribution basis for your business, it is simple to determine the percentage of this expense to sales; and, where you are using quotas and budgets, to establish a normal selling cost rate. If the quota is reached in a given territory and the budget is maintained, the anticipated profit will be earned, and you may assume that the percentages that you have used for each product are correct. If the results are quite different from your estimates, investigation may show that your quotas or estimates of certain expenses for certain products were incorrect; and, if so, they should be revised. This is exactly the same situation that you have with standard costs in the factory, which stand until there is conclusive evidence that they are wrong.

More Equitable Salesmen's Compensation

In analyzing budget figures we are at once confronted with the problem of salesmen's compensation. To many of you this may seem to be an abstract problem. Your salesmen are apparently satisfied, so why worry? One sales manager said to me that he did not need to bother with this problem because his salesmen could think up more plans of compensation than he could deal with. It seems to me that the very fact indicates an unrest on the part of the salesmen, who feel that they are not on a just basis of compensation and are groping for something better. Furthermore, executives are beginning to realize that the man who produces the most sales does not necessarily produce the most profit.

Do you realize how many different methods of paying salesmen are in use? There is the salary basis, the commission basis, and the drawing account and commission basis; and with any of these plans the salesman may pay his own expenses or the company may pay them. There are an indefinite number of variations to these plans.

Then we have bonuses, prizes, extra commission for attaining a certain volume, allowances of extraordinary expenses, not to speak of the many ways of making allowances to a salesman for his automobile. A good job of expense budgeting will throw the spot light on the method used for paying salesmen, and in most cases the results disclosed are highly interesting even if they are not pleasing. I think you will all agree that a good many firms, in fact probably the majority, pay their salesmen on a hit or miss basis, and the man who is a good aggressive bargainer is quite likely to get relatively more money than some of the others. Even where men work against quotas, the plan of compensation can be so wrongly based that no eventual good will result.

When salesmen's salaries are set by the usual process of bargaining, there is sure to be a deadlock in time. Suddenly a salesman decides he is not making sufficient progress; and yet when he naturally asks for an increase, the company does not quite know what to do. The man is good enough so that the company wants to keep him and the increase in pay is granted, although the executives of the company see at first only the immediate increase in selling cost and a smaller margin of profit. Instead of trying to correct the condition, by some equitable and comprehensive plan, the old arrangement is allowed to continue, and such difficulties are bridged from time to time by only the most temporary remedies.

As an illustration of the penalties brought about by the bargain method of setting wages, let me cite an instance which recently came to my attention. It may be an extreme case, but it very clearly illustrates the point. A man was engaged to represent a company in the marketing of a comparatively new product in the middle west, and they agreed to pay him a 10% commission on the amount of his sales. The company prospered and sales increased in every territory including that of the new salesman. He

was getting a very handsome income, but so was everybody else in the company, and nobody worried.

During this time the company had made a number of very profitable contracts with large manufacturers who used this article as an accessory, but after a year or two it so happened that all manufacturers, except two who were located in this middle west territory, discarded this particular accessory. The result was that about all the sales they had left were the sales to these two manufacturers in the territory of this one salesman. This particular salesman gets an income of about $50,000 a year, so he naturally does not exert himself. Now if they were to base his compensation on profits rather than on sales, and were distributing all selling expenses on an equitable basis to his territory as well as to the others, and were establishing reasonable quotas, he would still get a very handsome income but it would not be so far out of proportion.

Let me tell you of two or three other cases which illustrate the evils of the old bargaining or straight commission on sales basis. A company making a nationally advertised and distributed product decided they wanted to pay their salesmen on the basis of profits. We analyzed the sales and cost of goods sold for a period of eighteen months and found that the salesman who had the largest volume of business, had one of the smallest percentages of gross profit, and with all expenses deducted there was actually a loss on his business. When these figures were shown to him, he was dumbfounded and asked for a little time to think it over. He came back a little later and said that he did not feel that he was altogether to blame, as the company had or should have known the cost of the different style numbers, and yet had permitted him to build up a large business on unprofitable numbers. He could have sold other numbers to his trade had he known the facts.

It took him some time to shift his customers to other lines, but the company recognized the justice of his argument. That company's salesmen are now paid on the basis of their profits.

We recently made a survey of an old company making a line of soap powders. They had no analysis of sales or cost of goods sold, and when we made such an analysis, we found that although they were supposed to have national distribution and were doing some national advertising,

eighty-five per cent. of their output was sold in New England, and seventy-five per cent. of the total sales was in two lines. They established warehouses in other sections to increase sales in those territories, and are paying their men on the basis of profits.

In a large wholesale paper house a similar analysis showed that the man who was producing the most profit in a group of thirty salesmen, and who with the exception of two men had the longest record of service with the company, was paid the smallest salary of any man who had been in their employ more than five years.

Now is that justice, or is it even good business? If half the time was spent in measuring the salesman's value to the company that is spent in measuring the value of a piece of equipment, there would be far less turnover in salesmen.

I have no complete figures on that point, but for a few companies I know they are almost unbelievable. One company with a force of nearly forty men had a turnover of nearly 300% in the last three years. That was due partly to poor selection in the first place, but an equitable basis of compensation would have helped. The company certainly wanted to deal fairly with its men too, and they think they now have the solution.

Sales managers who are not guided by proper budget procedure frequently get into the habit of treating selling costs as including only the salesmen's salaries or commissions and expenses. When increases in pay are requested, they naturally enough tell the men that they cannot increase their pay without increasing the selling cost. In effect the answer is, "Bring in more sales, and you can arrange your own salary." If the quotas happen to be a little difficult to meet, the prevailing flat scale of commissions does not offer any particular inducement. To put it in another way, sales managers frequently have the fixed idea that as sales increase the commission or rate of pay per unit should decrease. With a good budget, the sales manager would know the amount of money available with such increased sales, and would arrive at a decision based on facts rather than on guesswork.

As a matter of fact, increased sales may result in such a large saving in expense from factory overearned burden that the pay rate of the salesmen could easily be increased.

This is not a plea for any particular policy as regards the scale of commissions, but only to find the facts and decide from them. In the final analysis it is the total selling cost that counts, not any single element of it. If the total unit cost decreases, there should be no particular cause for worry if a carefully prepared budget allows for an increase in salesmen's compensation.

To those of you who believe that your salesmen are equitably paid, I suggest that you analyze the situation roughly to determine the profit on each man. The result will surprise you; and if you can correct conditions and at the same time get a more equitable arrangement for your men, it is well worth doing.

Budgeting Salesmen's Pay

I am now going to ask you to refer to Exhibit A. This is a simple kind of statement, but a very important one, and is the starting point of all of our calculations and conclusions. The figures do not represent conditions in any particular company, but the percentages indicate results not very far from actual experiences.

I am assuming that you have reasonably accurate knowledge of your factory capacity, and of your manufacturing costs. If you have not, I can only say that you had better begin at the beginning, and lay a foundation of dependable manufacturing costs and reliable information as to your capacity. You will also have some idea of the expected total sales of each product; let us call that 100%. For this illustration we have taken $5,000,000 (line 1 in the 100% column) as the working quota which we really expect to meet; and as manufacturing cost is 65% of the sales, that gives us $3,250,000 (line 2) as the manufacturing cost of sales. This volume consumes the total of the normal factory output, and so we have no unearned burden (line 4).

Before going beyond the point of gross profit, it will be well to set up figures for sales at several points above and below the normal; and, in this instance, you will note that in the additional columns at the left and right of the 100% column we have calculated sales at 80%, 90%, 110%, and 120% of expected figures.

From the point of gross profit (line 5), it is a case of cutting and trying until you find the best if not the ideal division between expenses, company profits and amount

Exhibit A

DETERMINATION OF GROSS AMOUNTS AVAILABLE FOR SALESMEN'S PAY

	Item	80% Amount	80% Per Cent.	90% Amount	90% Per Cent.	100% Amount	100% Per Cent.	110% Amount	110% Per Cent.	120% Amount	120% Per Cent.
1	Sales	$4,000*	100.0	$4,500	100.0	$5,000	100.0	$5,500	100.0	$6,000	100.0
2	Manufacturing Cost	2,600	65.0	2,925	65.0	3,250	65.0	3,575	65.0	3,900	65.0
		$1,400	35.0	$1,575	35.0	$1,750	35.0	$1,925	35.0	$2,100	35.0
	Burden										
3	Overearned	......	......	......	......	......	......	11	.2	22	.4
4	Underearned	22	.6	11	.2	......	......	......	......	......	......
5	Gross Profit	$1,378	34.4	$1,564	34.8	$1,750	35.0	$1,936	35.2	$2,122	35.4
6	Expenses	980	24.5	1,000	22.2	1,000	20.0	1,040	18.9	1,090	18.2
7	Net Profit	$398	9.9	$564	12.6	$750	15.00	$896	16.3	$1,032	17.2
8	Acceptable Net Profit	198	4.9	311	7.0	450	9.0	546	9.9	624	10.4
9	Per Cent. of Net Profit to Investment	5.3%†		8.3%		12.0%		14.6%		16.6%	
10	Profit compared with 100% quota	44.0%**		69.1%		100.0%		121.7%		138.7%	
11	Available for Salesman's Pay	$200	5.0	$253	5.6	$300	6.0	$350	6.4	$408	6.8
12	Effective Total Pay compared with 100% quota		66.6%‡		84.0%		100.0%		117.3%		136.0%

* Amounts represent millions—000 omitted.
† The example assumes an investment (total outstanding capital stock and surplus) of $3,750,000.
** i.e., $198,000 profit = (5.3% on $3,750,000 investment) = 44% of $450,000 profit at 100% quota.
‡ $200,000 for salesmen = 66.6% of $300,000 at 100% quota.

available for salesmen. There is an irreducible minimum for each of these items, at least for any extended period; but if you put the figures down in this way, you must at least realize that you cannot increase one item without decreasing one or both of the others.

I think too many people make the mistake, in preparing a budget, of beginning at the expense end, rather than at the profit end and working backwards. After all, you are in business to make a profit. That is the goal you are seeking, and the mark should never be lost sight of. I happened the other day to be talking to an executive who I know has been working on a very carefully prepared budget for two or three years, and his company does arrive at a budgeted profit for a certain volume of sales. He had most of the expense figures at his tongue's end, but he didn't know what percentage or amount of profit they were shooting at. As a matter of fact, it is a very successful business, and perhaps he did not have to worry; but a great many people think of a budget as a plan of estimating every item of expense. The way they should look at it is that out of a certain volume of business or a certain gross income, they should have a certain amount of net profit.

Referring again to Exhibit A, opposite expenses (line 6) we budgeted *everything except salesmen's pay,* and in this instance we have assumed that the salesman pays his own traveling expenses. We then have an amount (line 7) out of what we must pay the salesmen, and out of which the company must make a profit.

Of course considerable detail is involved in taking the total lump sum paid, which is first determined, and dividing it into individual amounts, but with detailed figures of working sales quotas, this is not in any way puzzling. From this point on the arrangement is simply a question of details modified where necessary to cover certain local conditions or problems and to take care of salesmen who, for some reason, seem deserving of special consideration.

Before using the lump sum figures for salesmen's pay, deductions may be made for prizes of various kinds. A relatively small amount of money set aside for prizes can be made very attractive to the salesmen.

With a complete expense budget, and an acceptable net profit in dollars and cents before making any provision for salesmen's compensation (line 8), it is easy to deter-

mine how much money is available at full quota for salesmen's pay. Amounts may be similarly calculated for production over and under standard, so that you can calculate what percentage of sales is used for salesmen's compensation at varying sales output (line 11).

Basing Pay on Profits

Note carefully here that while we are expressing the salesmen's pay in percentage of sales, it is actually based on profits, because we have first determined how much money is available for profit and for salesmen's compensation (line 7), so that we have a fixed total amount which we can divide as seems best to keep the salesmen happy, and at the same time be fair as between the salesmen and the company.

Thus, if it is shown that the company's net profit increases from 10% to 15% for a given increase in the volume of sales, it is clear that the scale of salesmen's pay can be arranged so that his relative reward will be the same as the company's; or, if this is not considered necessary, at least a definite relation can be fixed. Of course the company must play safe. It would never do to use over-optimistic figures, thereby unfairly penalizing the company and eventually the salesmen. Safety must be taken into consideration; but with such a basically sound plan of payment, the company need not worry when a salesman suddenly increases his ordinary pay by a very generous percentage. In such a case the company knows exactly what its increased profit is, corresponding to the salesman's increased reward; and, within reason, the more money the salesman makes the more money the company makes.

This point is important, since it is only too true that sheer ignorance is the cause of making the management appear stingy; they fear that Mr. So and So is getting too much money, and therefore hesitate when the question of salary comes up.

There are, of course, low and high limits to this plan. There is a low point of sales volume below which the company makes a loss instead of a gain, because, in any event, it must pay a salesman a minimum salary or drawing account; but the man who is consistently under such low limits, is naturally not worth keeping, or else the fault is due to some mistake in the company's policy. Certain

unavoidable conditions in certain territories always have to be considered—as, for example, the coal strike in the mining districts of Pennsylvania or the Florida real estate boom. Consideration of such things presents no great difficulty, but the decision is much more likely to be equitable if based on real facts.

Where business is seasonable and salesmen's quotas are given in terms of an average amount per month or per period, it naturally follows that there will be some very lean periods and some very fat ones. Various methods have been tried to overcome this difficulty, but we believe the condition is best met by keeping records on a cumulative basis. The record to date (at the end of every month) would in such cases be the figures used for computing pay rather than the performance of any single month. Where a single month is taken, a salesman could, of course, earn a very handsome compensation for one month and then turn in very little the next month, through no fault of his own, or possibly by intent.

Such a method of determining salesmen's pay may be soundly *based* on profits, and yet has not the disadvantage of being a calculation from actual profit. There is an increasing desire on the part of business men to adopt some sort of a profit sharing scheme for their salesmen. Making a man a real profit sharer is practically the same as making him a partner, and I see no more reason why a salesman should be taken in as a partner than a foreman or superintendent, or any other executive at the factory. Usually these plans lead to difficulties, because unless they are actually partners or stockholders, the profit sharers are not resigned to share in the losses as well as the profits.

Furthermore, if the factory superintendent effects some extra economy, and manufacturing costs are accordingly cut down, there is certainly no objection to the company sharing such increased profits if it wishes and with whom it wishes, but why should the saving be given to salesmen, who had nothing to do with it, rather than to the people in the factory? Moreover, there are from time to time certain adjustments and extraordinary profits or losses, which might cause actual profits to fluctuate and thus result in variation in the salesmen's pay, but which even though correct and unavoidable are very difficult to explain. Under a compensation plan which is based on

current sales profits, predetermined from quotas and a budget, the salesmen would receive no part of extraordinary profits, nor be penalized for extraordinary losses. This arrangement is fair enough, as it is a safeguard for the success of the whole plan.

Let us consider lines 8 and 11 on Exhibit A showing the acceptable net profit and the amount available for salesmen's pay. When the executive looks at these figures, particularly the percentage available for salesmen's pay for volumes upward of 100%, he will immediately say there is something wrong, because he always has the idea that with the increased volume of sales selling cost should be reduced. As a matter of fact they are reduced because if you will look at the figures which represent the amount to be divided between profit to the company and salesmen's pay (line 7, you will see that the *percentage* of profit (line 7) increases steadily with the volume of business—from 9.9% at 80% to 17.2% at 120%. What you do below that figure is only a division between the company and the salesmen.

Some executives may feel that, in this instance at least, we are giving the salesmen too much, and that their rate of pay increases more than the rate of profit to the company. Please understand that I am not arguing for any set scale, but only for the principle of determining the basic facts accurately; having done that, I can only say to the company executive, "Let your conscience be your guide."

A glance at lines 9 and 12 will, however, show that the results are not so bad for the company as they may seem to be. These figures show the relation of net profit change to the salesmen's pay. We will all agree that the ultimate object of any company is to make a profit on its investment and pay dividends to its stockholders. In this particular case the net investment of the company is $3,750,000, and the net profit ratios on this investment for the several volumes of sales are shown as line 9. In line 10 we show the relation of these profits to the profits at the normal quota. For example, at 100% of volume the net profit is $450,000, and the ratio of net profit to investment is 12%. Taking that as 100%, we have figured the relation of other ratios to it. The interesting facts are that for 110% of volume the net profit on the investment is 14.6%, an in-

crease of 21.7%; and at 120% of volume the net profit is 16.6%, an increase of 38.7%.

In considering the salesmen's compensation, if we start with the rate of 6% of the sales at normal (or 100% of quota), and consider the different rates of compensation for the several volumes, we find that at 110% of quota the salesmen get 6.4% or $350,000, which is an increase of 17.3% compared with the compensation for normal quota, or 4.4% less than the company's rate of increase (21.7%). At 120% of quota, by a similar calculation, we find that the salesmen's rate of increase is 36%, compared with 38.7% for the company.

Perhaps I should make clear that the figures at the bottom of Exhibit A are the amounts and percentages on the total sales volume available for salesmen's pay, and not necessarily the rate of commission to be actually paid to the salesmen. Moreover, you do not necessarily pay all salesmen at the same rate. Once you have set a total amount which is equitable as between the company and the men, you then have the problem of being just as between men, the goal being to have each man produce the same rate of net profit for the company from his territory.

When you start you will find a lot of inequalities, of which I have mentioned one or two examples, to be adjusted as best you can. There are a number of interesting details in connection with working out such a plan as this, but there is hardly time to go into those here. Once your salesman is convinced that you are playing fair, and are basing your decisions as to his reward on facts, you will get his support, if he is fair and is the kind of a man you want.

As you can see, there is no one plan for solving all of the ills of a sales organization. I see nothing for it but careful analysis and conscientious study of the facts presented. Probably in no one organization would all of the details apply. Since all of the several plans or details presented here for your consideration, however, have been successfully used in a number of industries, I am confident that the principle is sound of basing a salesman's compensation on the profits he creates, wherever it is based on carefully prepared sales quotas and budgets.

Progress of the Society

Address of L. BELANGER, C.P.A.
Retiring Chairman, at the Annual Meeting of Montreal Chapter, April 26, 1927

THIS dinner marks the close of our fourth session. I desire to record my appreciation of the assistance rendered by the officers of the Chapter, toward making the past session as successful as it was.

The organization of the meetings, programme and lectures mean hard work. Many anxious hours are spent by your officers during Summer and early Fall to obtain definite assurances for the programme. There are so many who do not want to tell to others what they know. The members of the Board have all done their share and have been of great help to the President and the Secretary.

Your new Board is made up of good men, but you will have to assist them and welcome them when you are approached with a request to lecture at a meeting.

As to the retiring Chairman, you have decided that he did not deserve a rest after being in the chair of the Chapter one year and he has been elected to the Presidency of the Society. I appreciate the honour but I feel more like saying "Mercy" than "Merci." The work is arduous and somewhat complicated by the convention in September. If at the end of my term some progress has been achieved, let the congratulations be deserved by one and every member of the Society. I do not fancy the idea of any member of the Board being considered as "half the Board." While it may be a compliment to the recipient it implies either autocracy or neglect of duty by his fellow officers and the members of the Chapter.

Someone said that R. R. Thompson, our incoming Chairman, and Geo. C. Leroux, the new Vice-Chairman, are devouts of accountancy and have made it their religion. No one will object to their canonization. A Colonel and a Professor, our new chairman, will be guided by the high sense of duty that distinguishes him and he will retain this clarity and scholarly turn we appreciate so much in his talks and criticisms.

The Vice-President has applied his profound science of accountancy as higher officer of the Income Tax Department and has removed much of the bitterness of a most

unpopular fiscal law. Many accountants can trace to him a better understanding of accountancy. To Geo. C. Leroux and to Mr. Rowland, his assistant, we are indebted for most of the 22 new members who joined during last session.

As we have only small change in the treasury, we have no use for a strong box. Charles Whitten will take care of our cash in one of the Canadian Paperboard Co.'s products.

Presidents come and Presidents go, but Secretaries usually stay. Fernie does not. An extended business trip abroad, in the interest of his firm, takes him away. Let me state, here, the incomparable manner in which he discharged his duties. I believe I was better placed than anyone to appreciate his work. I extend to him our sincere thanks, and our best wishes will accompany him during his voyage*.

It is hoped that Mr. C. V. Sifton will continue his collaboration with the new secretary. I would have nice things to say about the other members of the Board, but our guests would gain the impression that this is a Mutual Admiration Society.

During the past session we heard speakers from Toronto, Boston and New York. Eight local members contributed papers. The subjects covered budgeting, modern methods of cost finding, income tax, graphic arts, sheet metal, paper, power, balance sheets, depreciation, etc., and entered specifically into labour, stores and maintenance costs.

A departure from previous programmes was given in following through in three meetings, "The Operation of a Modern Cost System." In one case, several actual instances in many industries of using costs for better management were given by one speaker. In another, the Chief Engineer of the Quebec Streams Commission, Mr. Lefebvre, told us about the costs of the great storage dams and hydraulic developments in our Province. All the above papers and others of preceding sessions, dealt with actual problems and how they were solved after minute study and scientific research.

I said "minute study and scientific research." May I assume that Dr. Tory meant to include "scientific business

*The speaker here referred to the election of R. R. Johnson as secretary of the Montreal Chapter. Mr. Johnson subsequently found that he could not carry on the work, and D. R. Patton was appointed.—Editor, Cost and Management.

research" when, speaking to the Canadian Club, he warned the Canadians and declared that "if Canada does not wake up and take advantage of the opportunities at hand and Canadians do not do their duty towards scientific research, they will be lagging behind the industrial world."

Buying or manufacturing and selling merchandise is one of the oldest arts but the newest of sciences. Formerly it was thought that if one had neither the time, the wit nor the opportunity to master a profession he could always turn to the field of business and make a living through buying or manufacturing and selling commodities. Many in certain quarters are still under this impression. In late years, however, the demands of the Government for an accounting of operations and the supremacy in competition evidenced by those who keep adequate records have brought a certain number of industrials to realize that theirs is an occupation demanding the skilled training of the profession.

Scientific Research and its technical application constitute one of the essential bases for the development of manufacturing, agricultural, mining and other industries. Cost accounting constitutes by itself scientific business research and no one can ignore it.

The late J. L. Nicholson writes: "Cost accounting as a vital factor of successful business administration, has, in the last few years, been brought home in various ways to many manufacturers, who before, had never seriously appreciated its importance."

The greatest number attending any meeting except dinner meetings was 144. The average member attendance was 40%. Why only 40%? I am told that this is a fair percentage for a scientific society, but we are not looking for a fair percentage of men with a fair percentage of ability. Our aim is at the top of the profession. Be you a blacksmith, be the best blacksmith in your town, be you a doctor, be the best doctor in your province, be you a cost accountant, be the best cost accountant in your country. Bergson, the eminent philosopher, in his introduction to William James' Pragmatism, writes: "The structure of our mind is mostly our own work, or at least the work of a few among us. Kant had said that the truth depends on the general structure of the human mind. Pragmatism adds that the structure of the human mind

is the effect of the free initiative of a certain number of individual minds."

If we admit that cost accounting is a form of research of truth by its analytic methods and control of proofs and facts, may we not infer that the individual cannot solely by himself give his brains proper shape and structure.

"Living alone with one's own thoughts," says Gustave Lebon, "is the source of many errors." It is hard for the human brains to discover all the aspects of a problem. Discussion is necessary and a discussed opinion is quickly improved. One of the great strengths of the German scientists in yonder days was to meet at night in cafes and discuss the results of their studies. The societies, conventions, associations are supposed to meet the purpose. I am afraid they do not, because to these official circles, one comes with well-prepared opinions ready to be solemnly expounded but not in the process of formation. Nothing can replace a free discussion around a table or in an open meeting between people eager to learn. It does not mean that they must be all accountants or all economists, all manufacturers, traders or bankers. What wonderful results could be gathered from frequent reunions of manufacturers, traders, bankers, economists, accountants and students where free discussion of problems of business, science, economics, taxation and analytic accounting would be indulged into in a friendly way? This is a hint to some, at the head table, with me. Not only the savants and would-be savants are solitary. Professional groups live apart and seem to profess a certain antipathy against one another. Individualism and selfishness reign supreme. Opinions of the members of such groups present nothing personal. They are collective ideas supported by sympathies or interests and rarely reasons. The C.S.C.A. has partly overcome this by creating contact between professors, professional accountants and industrial accountants and controllers. Friendly discussions between people from different areas uncover the asperities of problems and if not always solved, point out the difficulties and danger of rushing to conclusions. Post-war problems are harder to solve than war itself. One man alone, one lone group of men cannot find a solution. Many groups must get together,

talk over things in a friendly way, bringing into play all their experience and learning.

Let the scientist, the professor descend from his chair and mix with those who know less and impart some of his science to them. But alas, the one who needs most the light of knowledge too often prefers the darkness of the moving picture theatre, under pretext of relaxation. Rest, in my opinion, should be proportionate to work and should not absorb all leisure hours. If men are like figures and acquire their value from their position, should not the chief of a department or of a service encourage his subalterns to increase their knowledge so that when he retires he should not leave a series of ciphers of no value.

I close my remarks with a concise definition of the role of cost accountancy in the cycle of business economics and science taken from "Economics of Overhead," by Maurice Clark: "A graduate class in economic theory would be a success if the students gained from it a real understanding of the meaning of cost in all its main aspects. The economist may well study the accountant's conceptions of cost, since they constitute economic forces which affect the conduct of business and the laws of value of production."

This is a message to students and I will add to it an invitation to attend our meetings and gain a real understanding of the meaning of cost and the accountant's conception of it. Is this a message to students alone?

Not all of us have had the advantage of university training. Many are graduates of the great school of experience alone, and have made good by remaining perpetual students. Let them continue and convey this message to those who have not yet realized the importance of constant study, for their welfare and that of the community.

BOOK REVIEWS

Corporations Doing Business in Other States. By H. A. Haring. 302 pages, $5. The Ronald Press Company, 15 East 26th St., New York.

This is a work of reference rather than a text book, and as such it will be of interest to Canadians doing business across the line. It deals with all important questions that arise concerning legal status and other formalities that arise when a company wants to do business in a state—Application for admission, annual report and fees, restrictions upon foreign corporations, agents, warehousing, etc. The book is illustrated by specimen forms.

1927 ANNUAL CONVENTION

PLANS for the annual convention of the Society, to be held in Montreal, September 7-9, are going ahead along the lines drafted in our June issue, and next month we hope to present the completed program. All members who can arrange to attend, and others interested in the work of the Society, will assuredly find the sessions of value, and gain new ideas on cost work and on industrial problems related thereto.

Arrangements are being made to secure reduced railway rates on convention terms. These terms are that where 10 or more go from the same point on the same train, the rate is 1½ times single fare, which is a reduction of about 20 per cent. from the regular return fare. From Toronto to Montreal the fare at this reduced rate will be $17.45, including tax. Berth is additional. Details will be given in our August issue.

Members who know of people outside the Society, who would be interested in our convention literature, should forward names and addresses to the Society's headquarters.